arm and over the peroneal nerves, also on pressing the calf muscles. Examination on April 22nd showed that the deafness due to nerve involvement had remained about the same. His gait had improved slightly and the foot drop was not quite so marked. There was a paralysis of accommodation, ordinary print becoming blurred at a nearer point than twelve inches.

HERPETIC INFLAMMATION OF THE CERVICAL AND THORACIC NERVES.

By Dr. T. H. Weisenburg.

A young man of twenty-six with an excellent family history, played a rather hard game of golf. The following day he felt a little pain in the wrist of the right arm, this pain resembling that of rheumatism. About six days after this the whole hand and arm felt numb and dead, and at the same time there appeared herpetic eruption over the right shoulder and upper arm. Examination about eight days after the exposure showed that power was practically normal with the exception that he could not lift his shoulder as quickly as he should. He had also pain in the back of his head and over the right side of the face and in the right arm. The herpetic eruption extended from the shoulder along the upper border of the whole arm, this including the thumb and the first two fingers, being limited to the distribution of the fifth cervical segment. He had besides a hypesthesia for touch and pain over the whole right side of the face, right ear, the whole right side of the head and neck, this extending to a point about six inches below the angle of the scapula and in front of the chest on the nipple line, then to the middle of the chest and then to the face. The arm was wholly hypesthetic, this being more so in the distribution of the fifth cervical segment. In the course of a week the herpetic eruption disappeared and the area of hypesthesia gradually receded and in about three weeks after the appearance of the symptoms the patient was well. It is evident that the area of first inflammation was in the distribution of the fifth cervical ganglion, and the roots, both above and below, were involved. No herpetic eruptions were present excepting at the point of initial irritation. The case is rather interesting because of the large extent of sensation involved, this area including the fifth cranial nerve, all of the cervical nerves and the first six thoracic nerves, all of these being on the right side. It is also rather interesting to note that the hearing was not in any way diminished.

Dr. Lloyd asked whether Dr. Weisenburg made a puncture.

Dr. Weisenburg replied that the man got well too quickly.

ABNORMAL RESPONSE TO AN IRRITATION OF THE MOTOR AREA OF THE BRAIN.

By Dr. Alfred Gordon.

Abstract: A boy of 16 had been suffering from facial epilepsy affecting left arm, face and neck. An operation was decided upon. An osteoplastic flap uncovered the entire motor area on the right side. A very carefully applied faradic electrode (unipolar method) gave invariably a response on the right side of the body and not for one moment on the left side.

Dr. Lloyd said he thought this was really a very extraordinary observation. He has seen a good deal of faradization of the cortex and he has never seen anything like it. He thought the only explanation was that there was non-decussation of the pyramids. Such a thing is extremely rare. He asked whether there was any possibility of faradization of the membranes by which the current could have been transmitted to the opposite hemisphere. He would also like to know where the indifferent electrode was placed. Dr. Lloyd said he wished to say one word as to the technique. It seems to be the idea that it is better to faradize the ascending parietal convolution first. Dr. Lloyd does not have that idea. He has faradized the human cortex a number of times, and he inclines to the view that according to the theory of Grünbaum and Sherrington, the ascending parietal convolution exercises a reinforcing action, that is to say, if you put a rather strong current on this convolution you may get a little motor response. That is perfectly conceivable, the current may follow through the neurones. He thought under these circumstances it is better to apply the current to the ascending frontal convolution first. If you want to demonstrate that the motor neurones are entirely in front of the Rolandic fissure it is better to faradize them first. Then with an equal strength of current faradize the ascending parietal, when it will be evident that this latter convolution does not give a motor response. But if, at the very first, you use a very strong current, and faradize indiscriminately the various convolutions, you obtain overflow effects, and the results are confusing and valueless.

Dr. Spiller said that complete failure in decussation of the pyramidal tract is so uncommon that great caution should be observed in attributing symptoms to this condition.

Dr. Gordon said he had not mentioned in his talk everything he had written in the paper. He simply wanted to report an unusual response of the motor area to faradization. In answer to Dr. Lloyd's remark about first faradizing the precentral convolution and then the posterior convolution, this is entirely opposite to what Dr. Mills advises. Dr. Gordon compared very carefully the original notes of Dr. Mills and Dr. Lloyd, and Dr. Mills also advises to begin with the posterior convolution, first because he says the precentral convolution is absolutely certain to be motor, but if you start from the anterior convolution and then go to the posterior convolution, you may get some contractions in faradization of the posterior convolution, when no response would have been, perhaps, obtained had the electrode been applied first to this convolution. Dr. Lloyd, however, believes in the opposite. In regard to Dr. Spiller's query, Dr. Gordon said that in his experiments, which embrace two cases, one a normal case and this apparently abnormal case reported, he found certainly very distinct contractions in the opposite side by faradizing the precentral convolution and the sulcus, he also found them present in faradizing the postcentral convolutions, but less marked than in faradization of the precentral convolution. In regard to the possible explanation of the convolutions and the responses on the same side as the faradized side, he is really at sea to explain this occurrence. All possible precautions were taken. In his other case he found normal responses, which means faradization on one side, convulsions on the other side. At no moment did he observe in his first case even the slightest indication of contraction or twitching on the opposite side. When the area was exposed, Dr. Da Costa found on the side exposed some blood vessels which resembled very much angiomatous veins, but the cortex itself was intact. There was no autopsy in the case, no microscopical examination, no examination of the medulla, but Dr. Gordon did not see how otherwise could be explained the response on the same side than by want of decussation. Dr. Gordon stated that he had put the indifferent pole on the chest and before he transferred the electrode to the brain he tested the strength of the current with his hands, and he obtained a slight tingling sensation and only this current he employed for the experiment. There were extremely slight movements of the fingers. The same strength of current was used in the second case where the patient had normal contractions.

Dr. J. W. McConnell asked if Dr. Gordon had ever taken notice how much less this current is perceived when it is tested on the hand than when it is tested on some more sensitive part, for instance the lip. In many of the University Hospital cases of Dr. Mills they tested on the lip, and a current that was just perceptible to the lip was the current used.

PRESERVATION OF THE SENSATION OF PRESSURE IN THE FACE AFTER DESTRUCTION OF THE TRIGEMINAL NERVE.

By Messrs. R. H. Ivy and L. W. Johnson.

This paper is concerned with the conduction of sensory impulses from the face to the sensorium, and especially the conduction of deep pressure sensibility as contrasted with that of cutaneous sensibility to light touch, temperature, and pain sense. Up to a comparatively recent period it was considered that all sensory impulses of the face were carried by way of the fifth nerve, while the seventh nerve was concerned solely in the motor supply of the muscles to which it runs. Recently, however, the opinion has been gaining ground that while the fifth nerve conveys impulses of light touch, pain, and temperature sensations from the skin of the areas of its distribution, deep or pressure sensibility is conveyed by afferent fibers running in the motor nerve to the muscles, viz., the seventh nerve, except in the case of those muscles supplied with motor fibers by the fifth nerve. To support this view two cases studied by the writers and one case by the writers in association with Dr. Spiller, are reported, in which pressure sensibility was retained in the trigeminal area of the face after lesions completely destroying the Gasserian ganglion. These investigations have an important bearing upon the surgery of the fifth nerve. It has been noticed that after operation on the Gasserian or the sensory root of the fifth nerve, some sensation has been retained in the side of the face supplied by the nerve operated upon, at times giving rise to the assumption that the operation was imperfect. The subject is important also, because after surgical intervention on the fifth nerve a certain form of sensation may be preserved, so that there is not complete anesthesia, even with complete destruction of the fifth nerve.

Conclusions: The fifth nerve conveys sensibility to light touch, pain